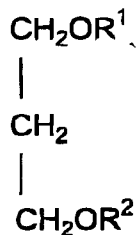


U.S.S.N. 08/945,667
PRELIMINARY AMENDMENT

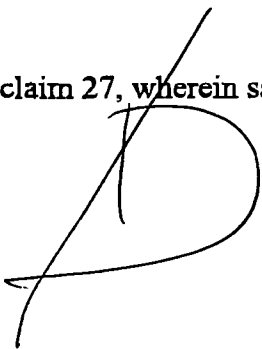
Please cancel claims 1-26 without prejudice or disclaimer to the subject matter contained therein.

Please add the following new claims.

--27. A compound having the formula:



wherein R^1 is selected from the group consisting of fatty acid acyl groups of 12 to 30 carbon atoms and fatty alcohol groups of 12 to 30 carbon atoms, and wherein R^2 is selected from the group consisting of H, fatty acid acyl of 12 to 30 carbon atoms and fatty alcohol groups of 12 to 30 carbon atoms, which may be the same as or different from R^1 , and the residue of a nutrient, drug, or other bioactive compound.--

--28. The compound according to claim 27, wherein said fatty acid acyl group has 16 to 30 carbon atoms.--


U.S.S.N. 08/945,667

PRELIMINARY AMENDMENT

--29. The compound according to claim 27, wherein said fatty alcohol group has 16 to 30 carbon atoms.--

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--30. The compound according to claim 27, further comprising a phosphate, succinate, or other difunctional acid linking moiety between R¹ and the corresponding diol oxygen, between R² and the corresponding diol oxygen, or both.--

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--31. The compound according to claim 30, wherein R² is the residue of a nutrient, drug, or other bioactive compound and contains a hydroxy or amino moiety.--

--32. The compound according to claim 27, wherein said fatty acid acyl group corresponds to a fatty acid selected from the group consisting of n-6 series essential fatty acids, n-3 series essential fatty acids, oleic acid, columbinic acid (CA), parinaric acid, and conjugated linoleic acid (cLA).--

--33. The compound according to claim 32, wherein said fatty acid is selected from the group consisting of γ-linolenic acid (GLA), dihomo-γ-linolenic acid (DGLA), arachidonic acid (AA), adrenic acid, stearidonic acid (SA), eicosapentaenoic acid (EPA), docosapentaenoic acid n-3, docosahexaenoic acid (DHA), and conjugated linoleic acid (cLA).--

U.S.S.N. 08/945,667

PRELIMINARY AMENDMENT

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--34. The compound according to claim 27, wherein R^2 is the residue of a drug or other bioactive compound to be transported across lipid membranes in the body, wherein said lipid membranes are cellular, intracellular, or form a part of the skin, blood-brain, or other barrier.--

B1 cont
--35. The compound according to claim 27, wherein R^2 is the residue of a drug, vitamin, amino acid, antioxidant, or other bioactive compound having a bioactivity that is additive to, complementary to, or synergistic with, the bioactivity of R^1 .--

--36. The compound according to claim 27, wherein one of R^1 and R^2 is an acyl moiety corresponding to an acid selected from the group consisting of γ -linolenic acid (GLA) and dihomogamma-linolenic acid (DGLA), and the other of R^1 and R^2 is an acyl moiety corresponding to an acid selected from the group consisting of γ -linolenic acid (GLA), dihomogamma-linolenic acid (DGLA), stearidonic acid (SA), eicosapentaenoic acid (EPA), docosahexaenoic acid (DHA), conjugated linoleic acid (cLA), and columbinic acid (CA).--

--37. The compound according to claim 27, wherein one of R^1 and R^2 is an acyl moiety corresponding to an acid selected from the group consisting of arachidonic acid (AA), and the other is an acyl moiety corresponding to an acid selected from the group consisting of

U.S.S.N. 08/945,667

PRELIMINARY AMENDMENT

arachidonic acid (AA), γ -linolenic acid (GLA), dihomo- γ -linolenic acid (DGLA), docosahexaenoic acid (DHA), and eicosapentaenoic acid (EPA).--

--38. The compound according to claim 27, wherein one of R^1 and R^2 is an acyl moiety corresponding to an acid selected from the group consisting of eicosapentaenoic acid (EPA) and the other is an acyl moiety corresponding to an acid selected from the group consisting of eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA).--

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--39. The compound according to claim 27, wherein R^1 is an acyl moiety corresponding to an acid selected from the group consisting of γ -linolenic acid (GLA), dihomo- γ -linolenic acid (DGLA), arachidonic acid (AA), stearidonic acid (SA), eicosapentaenoic acid (EPA), docosahexaenoic acid (DHA), and conjugated linoleic acid (cLA) and R^2 is a residue of a compound selected from the group consisting of amino acids, adenylysuccinate or derivatives thereof, nonsteroidal antiinflammatory drugs, antibiotics, antimalarial or antiprotozoal drugs, antifungal drugs, antiinflammatory steroids, gonadal steroids, adrenal steroids, retinoids, anticancer agents, antipsychotic agents, antidepressive agents, antianxiety agents, immunosuppressive agents, proton pump inhibitors or H2 antagonist, diuretics, calcium antagonist, angiotensin converting enzyme inhibitor or angiotensin antagonist, beta-adrenergic blocker, antiepileptic drug, hypolipidaemic agent, oral hypoglycaemic or insulin-

U.S.S.N. 08/945,667
PRELIMINARY AMENDMENT

sensitizing agent, bisphosphonate, radiological contrast agents, peptide or protein, vitamin, antioxidant, and porphyrin chlorin or bacteriochlorin-based drug.--

--40. The compound according to claim 39, wherein R^2 is the residue of an amino acid selected from the group consisting of tryptophan, phenylalanine, arginine, carnitine or derivatives thereof, and aminolevulinic acid.--

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--41. The compound according to claim 39, wherein R^2 is the residue of adenylosuccinate or derivative thereof.--

--42. The compound according to claim 39, wherein R^2 is the residue of a nonsteroidal antiinflammatory drug selected from the group consisting of aspirin, salicylic acid, indomethacin, and ibuprofen.--

--43. The compound according to claim 39, wherein R^2 is the residue of an antibiotic selected from the group consisting of tetracycline, clindamycin, minocycline, chlortetracycline, and erythromycin.--

U.S.S.N. 08/945,667
PRELIMINARY AMENDMENT

--44. The compound according to claim 39, wherein R^2 is the residue of an antimalarial or antiprotozoal drug selected from the group consisting of chloroquine, mepacrine, quinacrine, and mefloquine.--

--45. The compound according to claim 39, wherein R^2 is the residue of an antifungal drug selected from the group consisting of metronidazole, antifungal imidazoles and nitroimidazoles, and amphotericin.--

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--46. The compound according to claim 39, wherein R^2 is the residue of an antiinflammatory steroid selected from the group consisting of hydrocortisone, betamethasone, beclomethasone, and budesonide.--

--47. The compound according to claim 39, wherein R^2 is the residue of a gonadal steroid selected from the group consisting of oestrogens, progestogens, and androgens.--

--48. The compound according to claim 39, wherein R^2 is the residue of an adrenal steroid.--

--49. The compound according to claim 48, wherein the adrenal steroid is dehydroepiandrosterone.--

U.S.S.N. 08/945,667
PRELIMINARY AMENDMENT

--50. The compound according to claim 39, wherein R^2 is the residue of a retinoid selected from the group consisting of tretinoin and isotretinoin.--

--51. The compound according to claim 39, wherein R^2 is the residue of an immunosuppressive agent selected from the group consisting of cyclosporin and tacrolimus.--

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--52. The compound according to claim 39, wherein R^2 is the residue of an antiepileptic drug selected from the group consisting of phenytoin, carbamazepine, valproate, ethosuximide, vigabatrin, and lamotrigine.--

--53. The compound according to claim 39, wherein R^2 is the residue of a hypolipidaemic agent selected from the group consisting of fibrates and statins.--

--54. The compound according to claim 39, wherein R^2 is the residue of a radiological contrast agent selected from the group consisting of diatrizoate compounds, iodipamide, ioglycamates, iopanoates, iophendylate, iothalamate, ioxaglate, metrizamide, and derivatives thereof.--

U.S.S.N. 08/945,667

PRELIMINARY AMENDMENT

--55. The compound according to claim 39, wherein R^2 is the residue of a peptide or protein selected from the group consisting of insulin, calcitonin, and erythropoietin.--

--56. A pharmaceutical composition comprising an effective amount of the compound of claim 27 and a suitable carrier.--

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--57. A method for treating a disorder selected from the group consisting of complications of diabetes; cancer; osteoarthritis; rheumatoid arthritis; inflammatory and auto-immune diseases other than arthritis; respiratory diseases; neurological disorders; renal and urinary tract disorders; cardiovascular disorders; degenerative diseases of the eye; psychiatric disorders; prostatic hypertrophy and prostatitis; impotence and male infertility; mastalgia; male pattern baldness; osteoporosis; dermatological disorders; dyslexia and other learning disabilities; and cancer cachexia; comprising administering to a patient in need thereof an effective amount of the compound of claim 27.--

--58. The method according to claim 57, wherein said disorder is a complication of diabetes selected from the group consisting of neuropathy, retinopathy, and insufficient response to insulin.--

U.S.S.N. 08/945,667

PRELIMINARY AMENDMENT

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--59. The method according to claim 57, wherein said disorder is an inflammatory and autoimmune diseases other than arthritis selected from the group consisting of Sjogren's syndrome, systemic lupus, ulcerative colitis, Crohn's disease, and uveitis.--

--60. The method according to claim 57, wherein said disorder is asthma.--

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--61. The method according to claim 57, wherein said disorder is a neurological disorder selected from the group consisting of multiple sclerosis, Parkinson's disease, and Huntington's chorea.--

--62. The method according to claim 57, wherein said disorder is a degenerative disease of the eye selected from the group consisting of retinitis pigmentosa and senile macular degeneration.--

--63. The method according to claim 57, wherein said disorder is a psychiatric disorder selected from the group consisting of schizophrenia, Alzheimer's disease, attention deficit disorder, alcoholism, and depression.--

U.S.S.N. 08/945,667
PRELIMINARY AMENDMENT

--64. The method according to claim 57, wherein said disorder is a dermatological disorder selected from the group consisting of atopic eczema, hand eczema, psoriasis, urticaria, and allergic disorders.--

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--65. The method according to claim 57, wherein said disorder is selected from the group consisting of complications of diabetes; neurological disorders; cardiovascular disorders; degenerative diseases of the eye; psychiatric disorders; dermatological disorders; and dyslexia and other learning disabilities; and wherein R^1 is arachidonic acid (AA) and R^2 is selected from the group consisting of γ -linolenic acid (GLA), dihomo- γ -linolenic acid (DGLA), arachidonic acid (AA), eicosapentaenoic acid (EPA), and docosahexaenoic acid (DHA).--

--66. The method according to claim 57, wherein said disorder is selected from the group consisting of cancer; osteoarthritis; rheumatoid arthritis; inflammatory and auto-immune diseases other than arthritis; respiratory diseases; neurological disorders; renal and urinary tract disorders; cardiovascular disorders; degenerative diseases of the eye; psychiatric disorders; osteoporosis; dermatological disorders; dyslexia and other learning disabilities; and cancer cachexia; and wherein R^1 is eicosapentaenoic acid (EPA) and R^2 is selected from the group consisting of eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA).--

U.S.S.N. 08/945,667
PRELIMINARY AMENDMENT

--67. The method according to claim 57, wherein said administering comprises oral, topical, enteral or parenteral administration.--

--68. A method of treating or preventing a nutritional deficiency, comprising administering to a patient in need thereof an effective amount of a compound according to claim 27.--

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--69. The method according to claim 68, wherein said administering comprises oral administration of a composition comprising said compound and a food, nutritional supplement, or food additive.--

--70. The method according to claim 68, wherein said administering comprises enteral or parenteral administration.--

--71. A cosmetic composition comprising a compound according to claim 27 in combination with a carrier suitable for application to the hair or skin.--

--72. A method for treating skin disorders comprising applying to the skin or hair of a patient in need thereof the composition of claim 71.--

U.S.S.N. 08/945,667
PRELIMINARY AMENDMENT

--73. A method for treating psychiatric, neurological, behavioral, sleep, or pain disorders comprising administering to a patient in need thereof an effective amount of the compound of claim 40, wherein said amino acid is tryptophan.--

--74. The method according to claim 73, wherein said disorders comprise depression or migraine.--

--75. A method for treating depression, multiple sclerosis, or chronic fatigue syndrome comprising administering to a patient in need thereof an effective amount of the compound of claim 40, wherein said amino acid is phenylalanine.--

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--76. A method for treating diseases associated with defective nitric oxide production, comprising administering to a patient in need thereof an effective amount of the compound of claim 40, wherein said amino acid is arginine.--

--77. A method for treating muscle weakness, cardiac failure, chronic fatigue syndrome, Alzheimer's disease, or peripheral neuropathies, comprising administering to a patient in need thereof an effective amount of the compound of claim 40, wherein said amino acid is carnitine or a carnitine derivative.--

U.S.S.N. 08/945,667
PRELIMINARY AMENDMENT

--78. A method for treating cancer comprising administering to a patient in need thereof an effective amount of the compound of claim 40, wherein said amino acid is aminolevulinic acid.--

--79. A method for treating muscular dystrophy, cardiac failure, chronic fatigue syndrome, or Alzheimer's disease, comprising administering to a patient in need thereof an effective amount of the compound of claim 41.--

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--80. A method for treating inflammatory disorders of pain, Alzheimer's disease, or for inhibiting platelet aggregation, comprising administering to a patient in need thereof an effective amount of the compound of claim 42.--

--81. A method of treating or preventing a bacterial infection, comprising administering to a patient in need thereof an effective amount of the compound of claim 43.--

--82. The method according to claim 81, wherein said bacterial infection comprises acne.--

--83. A method of treating malaria, protozoal disorders, inflammatory disorders, or schizophrenia, comprising administering to a patient in need thereof an effective amount of the compound of claim 44.--

U.S.S.N. 08/945,667
PRELIMINARY AMENDMENT

--84. A method for treating fungal infections, comprising administering to a patient in need thereof an effective amount of the compound of claim 45.--

--85. A method for treating skin disorders or asthma, comprising administering to a patient in need thereof an effective amount of the compound of claim 46.--

--86. A method for treating ovarian deficiency, osteoporosis, or testicular deficiency, comprising administering to a patient in need thereof an effective amount of the compound of claim 47.--

--87. A method of treating disorders associated with aging comprising administering to a patient in need thereof an effective amount of the compound of claim 48.--

--88. A method for treating dermatological disorders, comprising administering to a patient in need thereof an effective amount of the compound of claim 50.--

--89. A method for treating autoimmune and inflammatory disorders comprising administering to a patient in need thereof an effective amount of the compound of claim 51.--